

STATUS OF THE CLAIMS

1-46. (Cancelled).

47. (new) A method for obtaining a population of cells from an umbilical cord matrix comprising:

- a) enzymatically dispersing umbilical cord matrix to provide enzymatically dispersed umbilical cord matrix cells;
- b) culturing the enzymatically dispersed umbilical cord matrix cells in the presence of epidermal growth factor (EGF) and platelet derived growth factor (PDGF) to proliferate the umbilical cord matrix cells;
- c) culturing the enzymatically dispersed umbilical cord matrix cells on a substrate surface and removing non-adherent cells;
- d) culturing adherent cells from c) to select for a population of umbilical cord matrix cells that comprise cells that are negative for CD34 and CD45, positive for telomerase activity, can be expanded in vitro, and maintained in culture through repeated passages.

48. (new) A population of umbilical cord matrix cells isolated by

- a) enzymatically dispersing umbilical cord matrix to provide enzymatically dispersed umbilical cord matrix cells;
- b) culturing the enzymatically dispersed umbilical cord matrix cells in the presence of epidermal growth factor (EGF) and platelet derived growth factor (PDGF) to proliferate the umbilical cord matrix cells;
- c) culturing the enzymatically dispersed umbilical cord matrix cells on a substrate surface and removing non-adherent cells;
- d) culturing adherent cells from (c) to select for a population of umbilical cord matrix cells that comprise cells that are negative for CD34 and CD45, positive for telomerase activity, can be expanded in vitro, and maintained in culture through repeated passages.

49. (new) A method of banking a population of umbilical cord matrix cells comprising providing a population of cells accordingly to claim 48 and banking the cells.

50. (new) The method of Claim 49, further comprising tissue typing said population of umbilical cord matrix cells.

51. (new) The method of Claim 49, further comprising expanding said population of umbilical cord matrix cells.

52. (new) The method of claim 49 further comprising passaging the population of umbilical cord matrix cells for at least 10 times, wherein the umbilical cord matrix cells remain stable during said passaging.

53. (new) The method of claim 49 wherein the umbilical cord matrix cells are human cells.

54. (new) The method of claim 49 wherein the umbilical cord matrix cells are porcine or bovine cells.

55. (new) The method of claim 49 wherein the umbilical cord matrix stem cells are equine or canine cells.

56. (new) The method of claim 49 wherein the umbilical cord matrix stem cells are rodent cells.

57. (new) An umbilical cord matrix cell culture comprising an umbilical cord matrix cell population according to Claim 48 and a feeder cell population.

58. (new) The cell culture of claim 57 wherein the umbilical cord matrix cell population is typed, banked or expanded.

59. (new) The cell culture of claim 58 wherein the umbilical cord matrix cell population and the feeder cells are of human origin.